

REMARKS

A review of the claims indicates that:

A) Claims 18 and 22-25 are previously presented.

B) Claims 1-7, 10-14, 16, 17, 19-21, and 26-40 were previously withdrawn under a prior restriction.

C) Claim 15 is cancelled.

D) Claims 8 and 9 are currently amended.

In view of the following remarks, the Applicant respectfully submits that all aspects of the Office Action mailed 06/02/2008 have been addressed.

Claim Amendments

The Applicant has made a number of claim amendments. These amendments are not a reflection of an opinion of the allowability of any claim, or of the content, disclosure and/or teaching of the prior art of record. Instead, the claim amendments reflect a desire on the part of the Applicant to move the prosecution of this application forward, to reduce the expense and time of the pending period, and to thereby expedite prosecution. The Applicant retains the right to file claims having the same or similar scope at a future date.

Claim Rejections Under 35 U.S.C. §112, Second Paragraph

Claim 9 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant amends the claim as suggested by the Examiner during the interview to clarify the subject matter. Support for the amendment is found in figure 1. Thus, the claim is supported and no new matter has been introduced.

1 Applicant respectfully submits that this claim now complies with §112, second
2 paragraph and respectfully requests that the §112 rejection be withdrawn.

3 **Claim Rejections Under 35 U.S.C. § 102(a)**

4 Claims 8, 9, and 18 were rejected under §102(a) as being anticipated by
5 U.S. Patent Application No. 2002/0177026 to Hatano et al. (hereinafter “Hatano”).
6 In response, the Applicant respectfully traverses the rejection.

7 **Independent Claim 8**

8 Without conceding the propriety of the rejection and only to advance the
9 prosecution of this application, Applicant amends independent claim 8 to further
10 clarify features of the claimed subject matter. In particular, the Applicant has
11 amended Claim 8 to specify the cantilevered configuration of the current collector
12 in the fuel cell. Support for this amendment can be found at least at figure 1,
13 showing current collector #106 cantilevered within the fuel cell.

14 Amended claim 8 now recites a method, comprising (emphasis added):

- 15
- 16 • obtaining a first current collector layer suitable for
17 physically supporting parts of a fuel cell stack,
18 wherein the fuel cell stack includes at least two
19 electrodes and an electrolyte layer;
 - 20 • depositing a first electrode on the first current
21 collector layer;
 - 22 • depositing the electrolyte layer of the fuel cell stack
23 on the first electrode layer;
 - 24 • depositing a second electrode layer of the fuel cell
25 stack on the electrolyte layer;
 - depositing a second current collector layer of the
fuel cell stack on the second electrode layer; and
 - mounting the fuel cell stack within an enclosure
defining a chamber of a fuel cell, wherein a
connection between an inside surface of the
enclosure and the first current collector layer
physically supports the fuel cell stack within the

1 chamber, and wherein the first current collector
2 layer is cantilevered within the chamber of the
3 fuel cell to support the fuel cell stack.

4 The Applicant respectfully submits that no such method is described by
5 Hatano, and reminds the Examiner of the discussion with the Applicant's
6 representative, Dillon Murphy, to that effect.

7 **Hatano fails to disclose a current collector layer cantilevered within the**
8 **chamber of the fuel cell to support the fuel cell stack**

9 Hatano describes a fuel cell plate structure including a cell element layer
10 composed of a solid electrolyte, an air electrolyte and a fuel electrode layer, a
11 porous base body supporting the cell element layer, and a gas-impermeable
12 member having electric conductivity. *See*, abstract. In Hatano, the porous base
13 body (similar to a current collector) is affixed in the fuel cell housing as a simply
14 supported beam with the beam supported at both ends and loads applied between
15 the supports. *See*, figures 10A and 10B, and paragraph [0115]. The construction
16 in Hatano is similar to that found in a post and lintel system, with the horizontal
17 porous base body explicitly supported at both ends within the fuel cell chamber.

18 In contrast, the Applicant's amended claim 8 recites, "*wherein the first*
19 *current collector layer is cantilevered within the chamber of the fuel cell to*
20 *support the fuel cell stack.*" The Applicant's current collector is a projecting
21 horizontal beam fixed at one end only. *See*, Applicant's specification, figure 1.
22 Supporting the fuel cell stack in this manner allows the performance to be
23 increased by allowing the electrodes to be thin without compromising structural
24 integrity. *See*, Applicant's specification, page 3, lines 23-29. Thus, claim 8, as
25 amended, recites subject matter not taught or suggested by the prior art of record.

1 Because the claim recites features (e.g. the cantilevered current collector)
2 not disclosed in Hatano, the Applicant respectfully submits that Claim 8, as
3 amended, is not anticipated by Hatano. While the Jankowski reference (US
4 6,638,654) was not cited in the rejection, the Applicant additionally notes that
5 Jankowski fails similarly fails to teach or suggest the amendments to Claim 8.
6 Accordingly, the Applicant respectfully requests the § 102 rejection of this claim
7 be withdrawn.

8 **Claims 9, 18, 19, and 22-25** depend from Claim 8 and are allowable due to
9 their dependence from an allowable base claim. These claims are also allowable
10 for their own recited features that, in combination with those recited in Claim 8,
11 are neither disclosed nor suggested in references of record, either singly or in
12 combination with one another. Accordingly, the Applicant respectfully requests
13 that the rejection of these claims be removed.

14 **Conclusion**

15 The Applicant submits that all of the claims are in condition for allowance
16 and respectfully requests that a Notice of Allowability be issued. The Applicant
17 would welcome a telephone discussion of the claims and the art, to resolve the
18 allowability of any claims.

19
20 Respectfully Submitted,

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